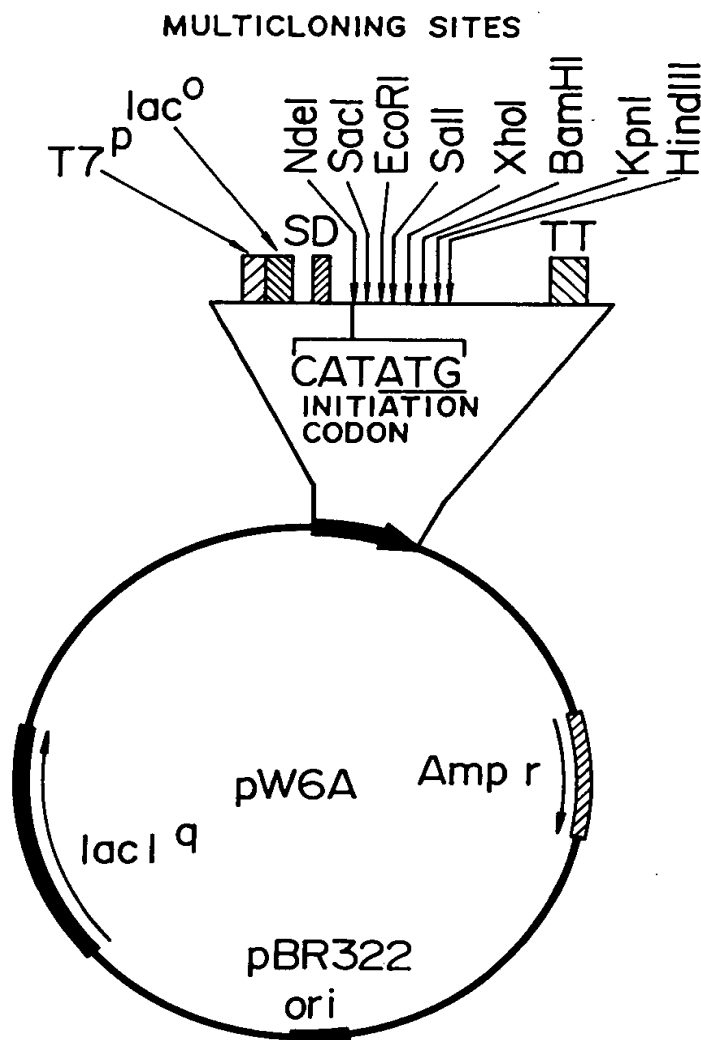


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FIG. 1

DETAILED DIAGRAM OF EXPRESSION VECTOR pW6A



T7^p : T7 PROMOTER
 lac^o : lac OPERATER
 SD : SHINE-DALGARNO SEQUENCE
 TT : T7 TRANSCRIPTIONAL TERMINATOR

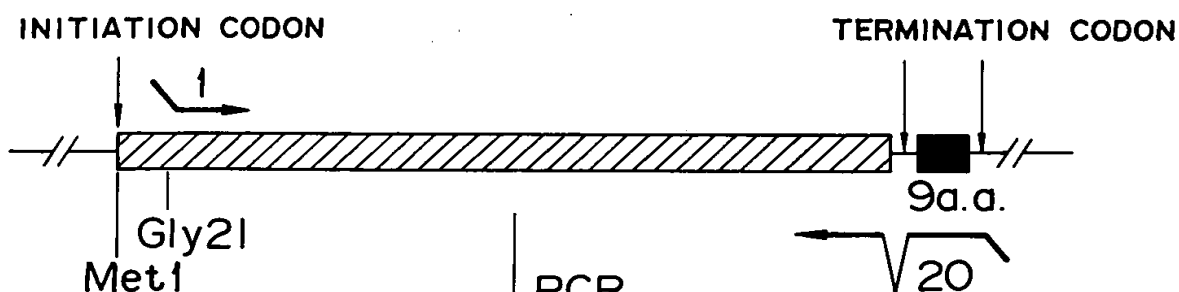
Amp^r : β LACTAMASE
 lacI^q : lac REPRESSOR
 pBR322
ori : REPLICATION ORIGIN

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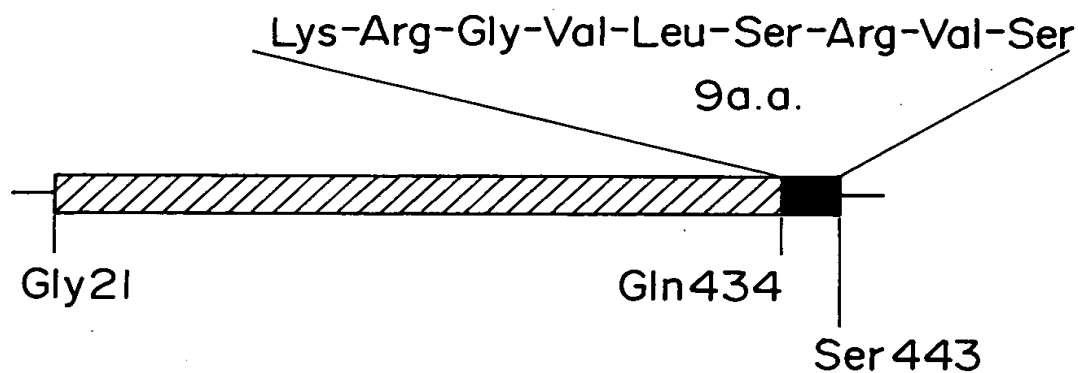
FIG. 2

PREPARATION OF GENE ENCODING 47K ANTIGEN

GENE ENCODING 47K ANTIGEN ON GENOMIC DNA



GENE ENCODING 47K ANTIGEN WITH C TERMINAL EXTRA SEQUENCE
(N TERMINAL SIGNAL SEQUENCE IS DELETED)

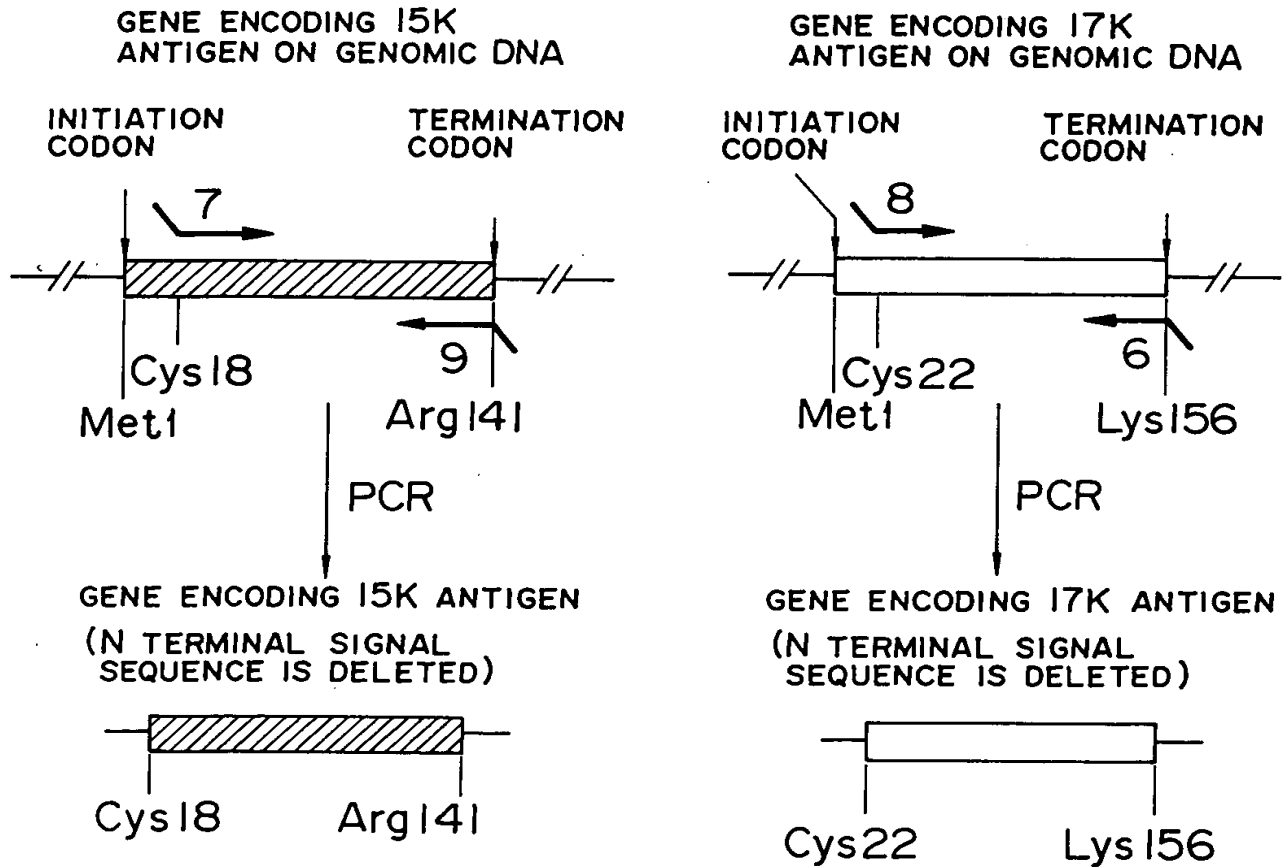


← : PRIMER

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FIG. 3

PREPARATION OF GENE ENCODING 15K ANTIGEN AND 17K ANTIGEN

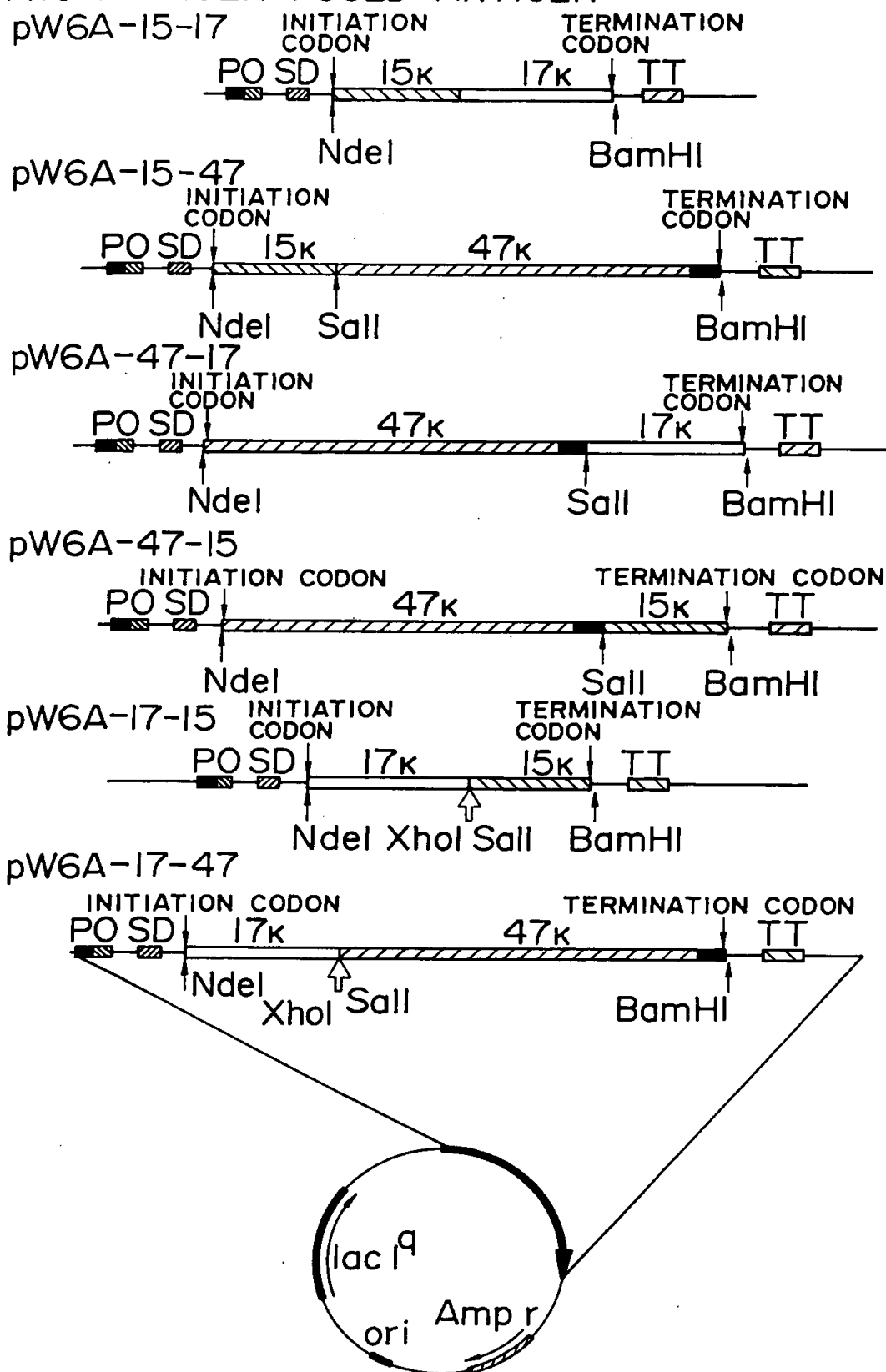


← : PRIMER

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FIG. 4

DETAILED DIAGRAM OF EXPRESSION VECTOR FOR TWO-ANTIGEN FUSED ANTIGEN

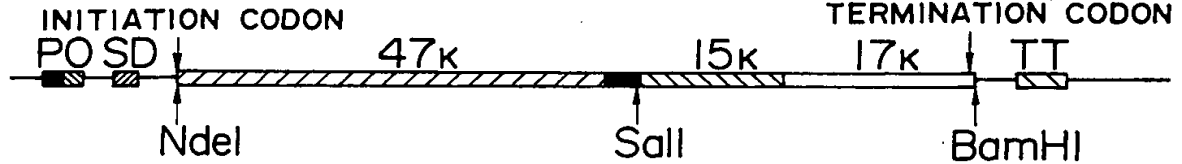


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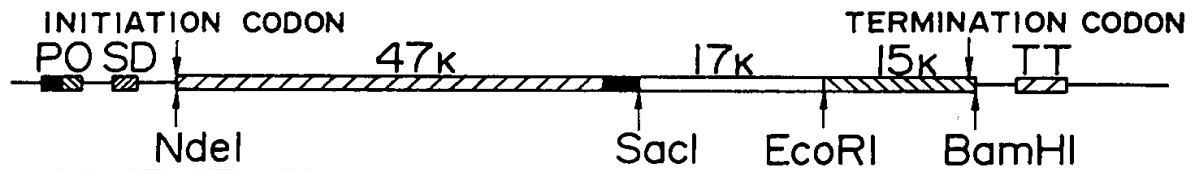
FIG. 5

DETAILED DIAGRAM OF EXPRESSION VECTOR FOR
THREE-ANTIGEN FUSED ANTIGEN

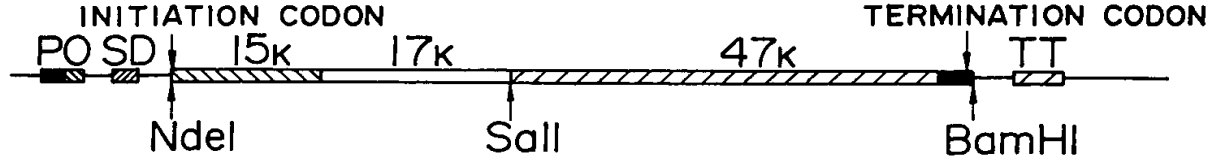
pW6A-47-15-17



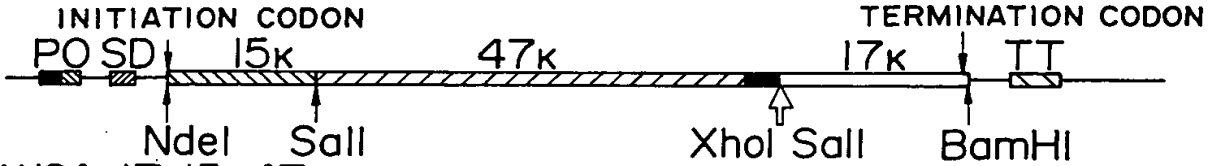
pW6A-47-17-15



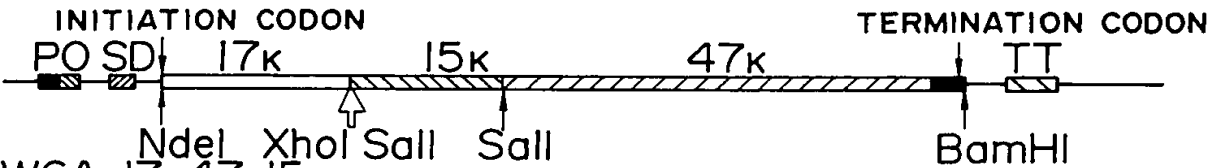
pW6A-15-17-47



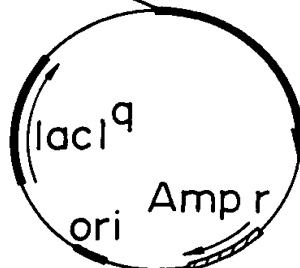
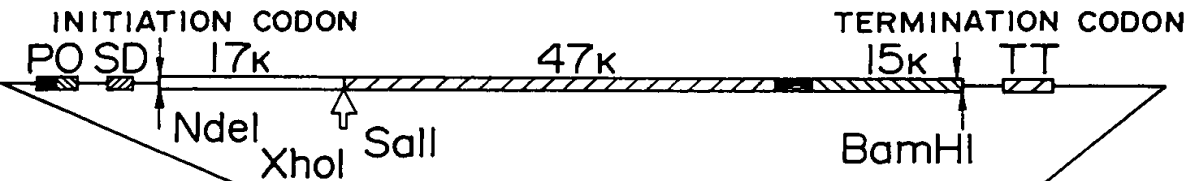
pW6A-15-47-17



pW6A-17-15-47



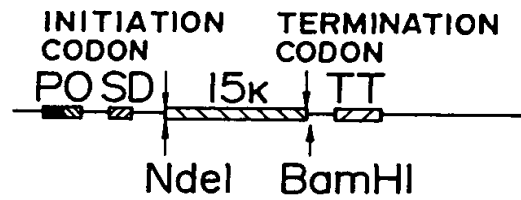
pW6A-17-47-15



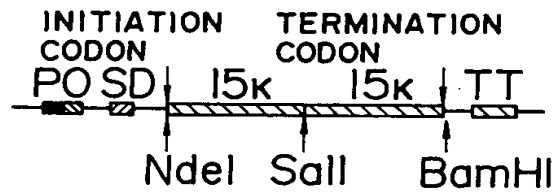
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FIG. 6

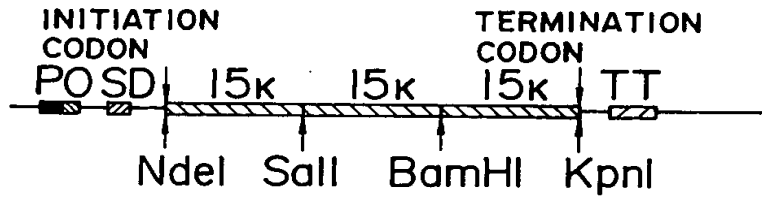
pW6A-15



pW6A-15-15



pW6A-15-15-15



pW6A-15-15-15-15

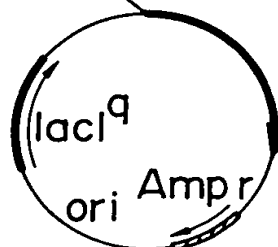
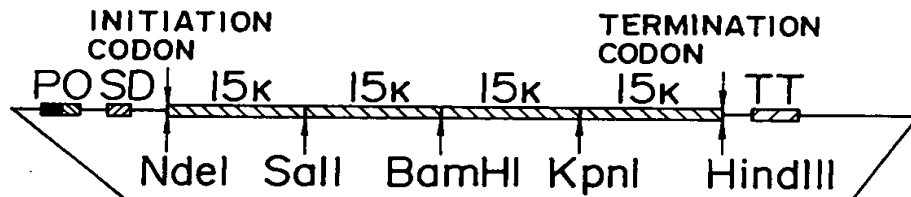
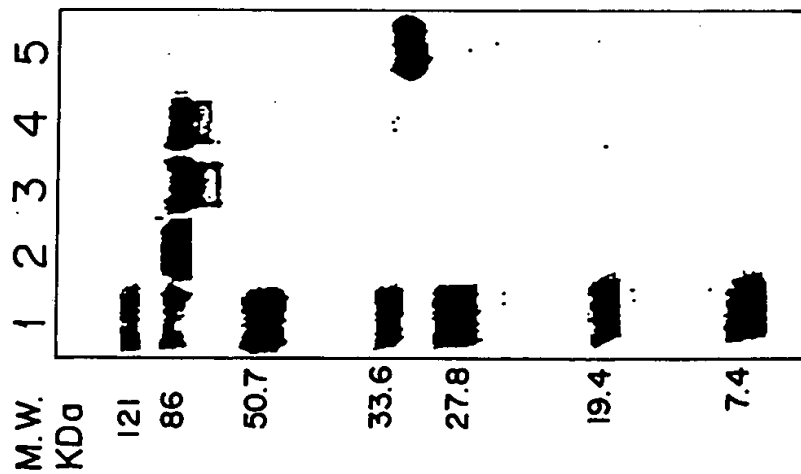
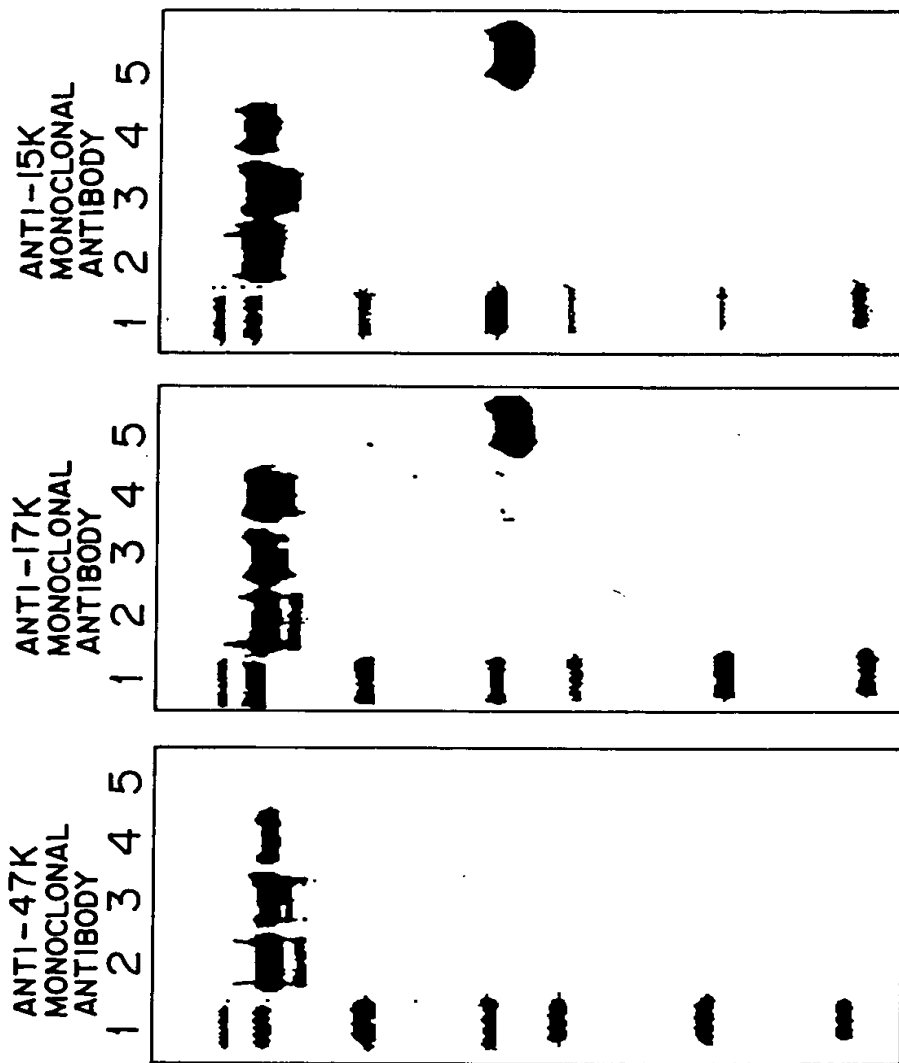


FIG. 7

COOMASSIE STAIN



WESTERN BLOT



LANE 1 : MOLECULAR WEIGHT MARKER

2 : 47-17-15

3 : 47-15-17

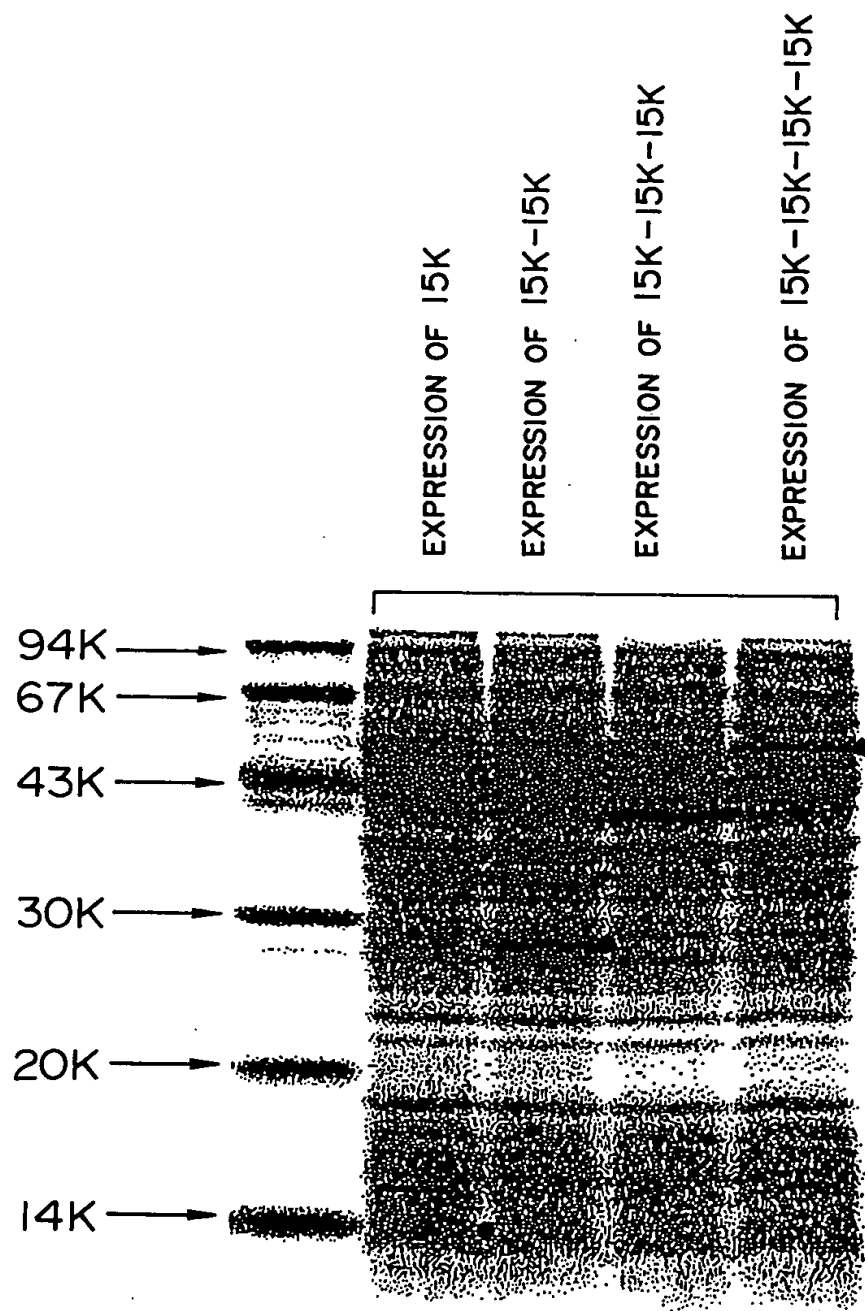
4 : 15-17-47

5 : 15-17

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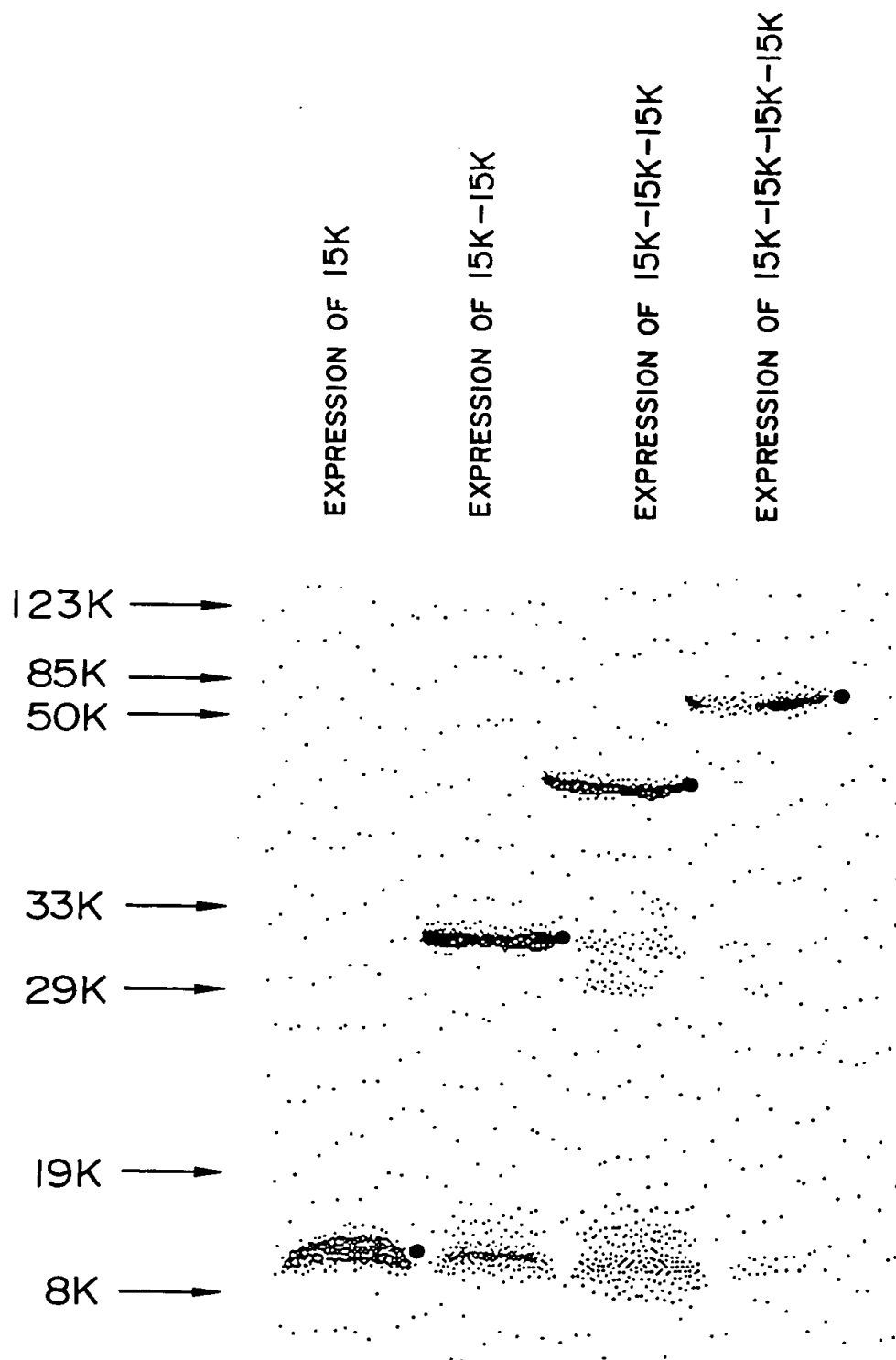
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FIG. 8

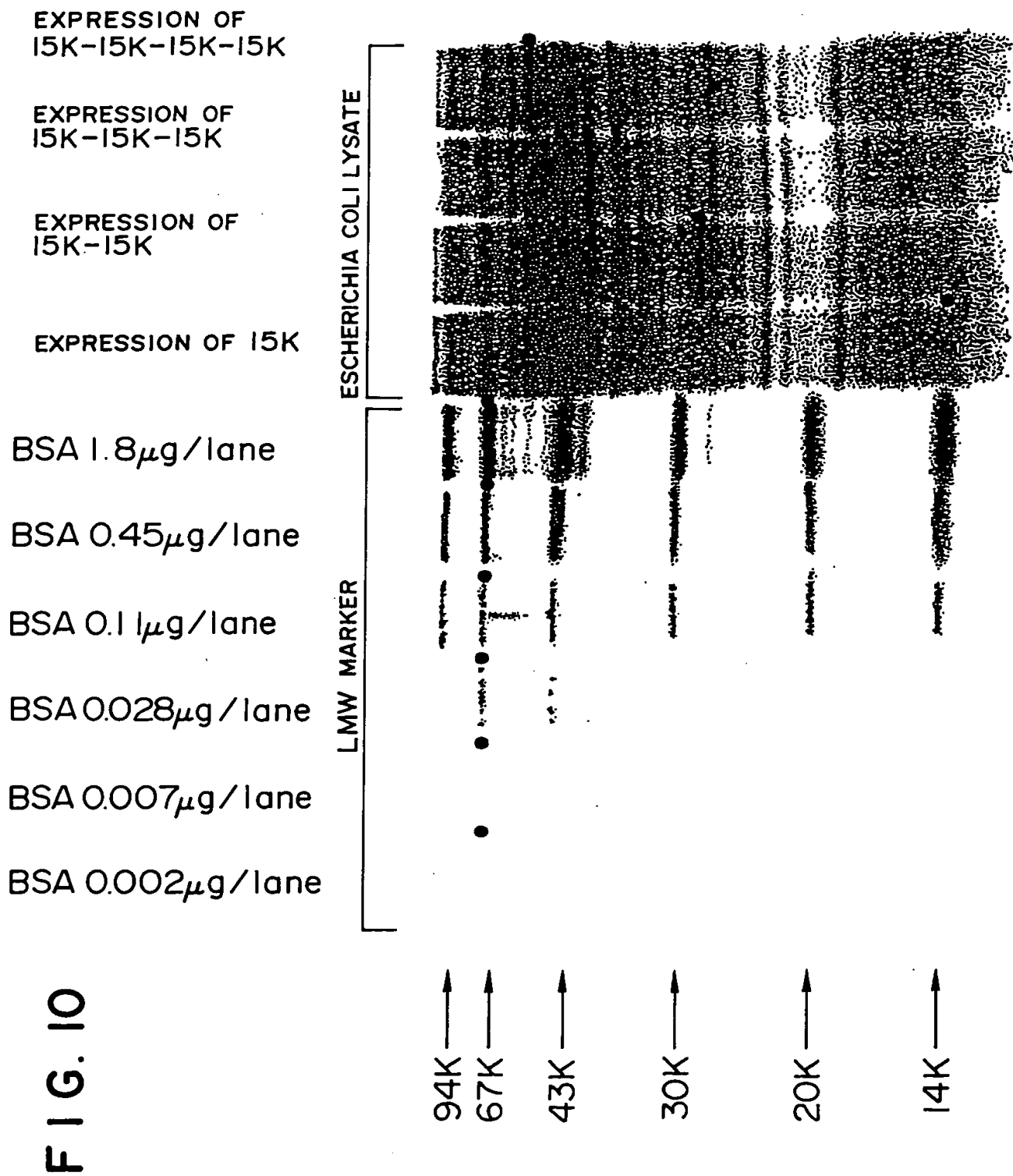


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FIG. 9



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FIG. 11

